

Title (en)

MEMORY MODULE, MEMORY SYSTEM, AND OPERATION METHOD OF MEMORY CONTROLLER

Title (de)

SPEICHERMODUL, SPEICHERSYSTEM UND BETRIEBSVERFAHREN FÜR SPEICHERSTEUERGERÄT

Title (fr)

MODULE DE MÉMOIRE, SYSTÈME DE MÉMOIRE ET PROCÉDÉ DE FONCTIONNEMENT DE CONTRÔLEUR DE MÉMOIRE

Publication

**EP 4167091 A1 20230419 (EN)**

Application

**EP 22198321 A 20220928**

Priority

- KR 20210135051 A 20211012
- US 202217895227 A 20220825

Abstract (en)

A memory system includes a memory module that includes a first memory device through a fourth memory device and a first error correction code (ECC) device, and a memory controller that exchanges first user data with each of the first memory device through the fourth memory device through 8 data lines and exchanges first ECC data with the first ECC device through 4 data lines. The memory controller includes an ECC engine that corrects a 32-random bit error of the first user data, based on the first ECC data.

IPC 8 full level

**G06F 11/10** (2006.01)

CPC (source: EP)

**G06F 11/1048** (2013.01)

Citation (search report)

- [IA] US 2019034270 A1 20190131 - BYUN HUI-CHUNG [KR], et al
- [IA] US 2021019225 A1 20210121 - OH BYOUNGCHAN [US], et al
- [A] US 2020133769 A1 20200430 - BAINS KULJIT S [US]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

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DOCDB simple family (application)

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